REMARKS

Claims 1-4 are pending in this application. Claims 1 and 4 are independent claims. By this amendment, claims 1 and 4 are amended. Reconsideration in view of the above amendments and following remarks is respectfully solicited.

Applicant wishes to thank Examiners Alicia Harrington and Ricky Mack for the courtesies extended to Applicant's representative, Carolyn Baumgardner, during the May 21, 2003 personal interview. During the interview, the differences between the claimed invention and the Kaneko reference were discussed. The substance of the personal interview is summarized in the following remarks.

I. THE CLAIMS DEFINE PATENTABLE SUBJECT MATTER

The Office Action rejects: **(1)** claim 1 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,035,137 to Kaneko et al. (hereafter Kaneko); **(2)** claim 2 under 35 U.S.C. §103 as unpatentable over Kaneko; and **(3)** claim 3 under 35 U.S.C. §103 as unpatentable over Kaneko in view of U.S. Patent No. 5,859,733 to Miyano (hereafter Miyano); and **(4)** claim 4 under 35 U.S.C. §103 as unpatentable over Kaneko. These rejections are respectfully traversed.

Applicant respectfully submits that the above noted rejection under Kaneko fails to establish a *prima facie* case of anticipation because Kaneko fails to teach or suggest each and every feature as set forth in the claimed invention.

In addition, the above noted rejection fails to establish a *prima facie* case of obviousness because even if Kaneko is combined with Miyano and/or with the Examiner's official notice, the

structure that has been claimed is not shown or suggested by the cited references.

Independent claim 1 recites, *inter alia*, a lens drive device that is detachably mounted to a lens device body. The detachable lens drive device includes a motor and a storage device that stores information prescribing a braking characteristic of a moving object driven by the motor. An input device receives a signal for changing the braking characteristics. A braking characteristic setting device changes the settings of the braking characteristic according to the signal received from the input device, wherein brake works before one of a wide angle end and a telephoto end can be changed. The braking characteristic is an amount of acceleration at a time a lens is stopped at the telephoto end or at the wide angle end.

Independent claim 4 recites, *inter alia*, a lens drive device that is detachably mounted to various types of lens device bodies. The detachable lens drive device includes a motor portion for driving various types of moving objects and a storage portion for storing information prescribing a braking characteristic of the various types of moving object s to be driven by the motor portion. An input portion receives a signal for changing the braking characteristics. A braking characteristic setting portion changes the settings of the braking characteristic according to the signal received from the input portion. A display portion attached to the various types of lens devices bodies displays the status of the lens. A switching portion switches the display to correspond with the changing of the braking characteristics. The braking characteristic is an amount of acceleration at a time a lens is stopped at the telephoto end or at the wide angle end.

An aspect of the present invention is that a braking characteristic of the moving object driven by the lens drive device is changeable within the servo module itself. The lens drive device, i.e., servo module 12, is separable from the lens device 10. With reference to applicant's Fig. 5, for example, a change in the braking characteristic is shown. Specifically, applicant's Fig. 5 illustrates that positions where a brake begins to work (brake working positions) are shifted before the telephoto end and the wide angle end. The acceleration near the telephoto and wide angle ends are set by adjusting the brake working positions. The brake working positions are also the points where zooming speeds starts to slow down. In other words, the brake working positions are the positions which correspond to the points (c, b, a, d, e) shown in the upper left part in applicant's Fig. 5, for example.

The points indicating the brake working positions, are changed suitably corresponding to the types of lenses that are to be attached, whereby an inclination in the graph near the ends, i.e. the acceleration, is set. This inclination indicating the acceleration is set beforehand at a certain value at the time of manufacturing (it can also be set at the time of shipping), but the acceleration value can be changed to suit the needs of a user. Thereafter, a deceleration at the time of stopping at the telephoto end or the wide angle end is performed in accordance with the previously set acceleration. Therefore, the braking characteristic is the amount of acceleration at a time to stop the lens near the ends. That is, the present invention is characterized in that the settings are changed for the brake working positions that determine how long before the ends the brake should start working, whereby the acceleration at the time of slowing down is set.

In contrast to the present invention, Kaneko fails to teach or suggest the above noted aspect/feature, i.e., the brake working before one of a wide angle end and a telephoto end can be changed, wherein the braking characteristic is an amount of acceleration at a time a lens is stopped at the telephoto end or at the wide angle end, as set forth in claims 1 and 4.

Specifically, Kaneko merely discloses moving a lens at a predetermined zoom rate by an operation of a quick zoom switch 32 (SW1), and automatically returning the lens at a stored zoom position by turning off the SW1. However, Kaneko fails to teach changing an amount of acceleration at a time a lens is stopped at the telephoto or wide angle ends, as set forth in the claimed invention.

For example, claim 1 recites that the braking positions (brake working positions) where a brake works before a wide-angle end or a telephoto end can be changed. Thus, the braking characteristic (a characteristic curve of the amount of acceleration at the time to stop the lens) of a movable element, i.e., a movable lens, can be changed. Therefore, unlike Kaneko, the present invention achieves an effect whereby an optimum characteristic can be set for lenses of various types. Kaneko clearly fails to disclose the above noted feature of changing the amount of acceleration at a time to stop the lens near the ends.

According to MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the …claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226,

1236, 9 USPQ2d 1913 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully submits that the Office Action has failed to establish the required *prima facie* case of anticipation because the cited reference, Kaneko, fails to teach or suggest each and every feature as set forth in the claimed invention.

Furthermore, applicant respectfully submits that Miyano fails to make up for the deficiencies found in Kaneko. Like Kaneko, Miyano fails to teach or suggest changing an amount of acceleration at a time to stop the lens near the ends. Thus, the combination of Kaneko with Miyano fails to make obvious the claimed invention.

Applicant respectfully submits that independent claims 1 and 4 are allowable, for at least the reasons set forth above, over Kaneko, either alone or in combination with Miyano. As for each of the dependent claims not particularly discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1-4 under 35 U.S.C. §102(e) and §103(a) is respectfully solicited.

II. CONCLUSION

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Applicant respectfully petitions under the provisions of 37 C.F.R. §1.136(a) and §1.17 for a one(1) month extension of time in which to respond to the Examiner's Office Action. The appropriate

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Extension of Time Fee is attached hereto.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 **to schedule a Personal Interview**.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

Respectfully submitted,
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Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS SHOWING CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Three Times Amended) A lens drive device to be detachably mounted to a lens device body, the detachable lens drive device comprising:

a motor;

a storage device which stores information prescribing a braking characteristic of a moving object driven by the motor;

an input device which inputs a signal for changing the braking characteristics; and

a braking characteristic setting device which changes settings of the braking characteristic according to the signal received from the input device,

wherein a brake works before one of a wide angle end and a telephoto end can be changed,

wherein the braking characteristic is an amount of acceleration at a time a lens is stopped at the telephoto end or at the wide angle end.

4. (Amended) A lens drive device to be detachably mounted to various types of lens device bodies, comprising:

a motor portion for driving various types of moving objects;

a storage portion for storing information prescribing braking characteristics of the various types of moving objects to be driven by the drive portion;

an input portion for receiving a signal instructing a change in the braking characteristic;

a braking characteristic setting portion for changing the settings of the braking characteristic according to the signal received in the input portion;

a display portion attached to the various types of lens device bodies for displaying the status of the lens; and

a switching portion for switching the display to correspond with the changing of the braking characteristic,

wherein the braking characteristic is an amount of acceleration at a time a lens is stopped at the telephoto end or at the wide angle end.